3 EXISTING AND FUTURE TRAVEL MARKETS

In order to predict the number of riders that can be expected to use a particular transit alternative, we first need to understand the existing travel market: the number of trips made today, the purpose of those trips, and any other characteristics that influence travel in the corridor. Once the existing market is defined, it is then projected to a future year (2020) when it is expected that the proposed transit services could be operational.

As described below, the travel market in the study area consists of residents and visitors that can be further subdivided:

- Residents make work and non-work trips;
- Visitors make trips that bring them to or from the area for one day or for overnight stays, as well as side trips made during the course of their stay in the area.

The travel markets were analyzed in a segmented way to gain an understanding of trip patterns and characteristics of both visitors and residents. The following sources of information were used:

- A review of transit usage by visitors to other national parks or similar recreational destinations was conducted for this study.[2]
- Available data on existing travel, such as that compiled by the U.S. Census Bureau, State of Maine Department of Labor, State of Maine Office of Tourism, or the National Parks Service, were used when possible. In other cases, inferences were made from that data.[3]
- Market research was performed for this study by conducting and analyzing project-specific travel surveys. Residents and visitors were surveyed to determine the types of choices that they currently make and the hypothetical choices that they believe they would make if different choices were available. Two surveys were used, as described below and in Appendix 3:
  - *Visitor Induced Demand Survey:* Induced demand refers to new trips that would be made as a result of proposed services. The Visitor Induced Demand Survey was mailed to 950 households in the U.S. and Canada drawn from a Maine Department of Tourism database containing names and addresses of people who had previously requested information about the study area.
  - *Mode Shift Survey:* Mode shift refers to existing trips that would be made using new services if they were available. The Mode Shift Survey was designed to test traveler interest in several combinations of service attributes. Twenty –one versions of the survey were created, each presenting different combinations of mode, travel time, frequency, directness, fare, and number of stops in Bangor. The Mode Shift Survey was conducted on five days in July, 2001 at Mount Desert Island locations that are major destinations for recreational travelers.

[2] See Transportation Issues and Efforts at Acadia and Other National Parks, June 2001, and Visitor Ridership to Selected Tourist Destinations on Existing Rail Lines, June 2001.
[3] See Description of Current Resident Travel Market in the Bangor-Trenton Corridor, August 2001, and Description of Current Visitor Travel Market in the Bangor-Trenton Corridor, September 2001.

- Available data on future travel, such as that compiled by the State of Maine Office of Tourism, U.S. Department of Commerce, or the Travel Industry Association of America, were used when possible. In addition, information on past travel trends in the U.S. and between the U.S. and international origins (World Travel and Tourism Council) was used.

The sections below describe the major conclusions that were drawn about similar recreational markets, the existing travel market in the study area, and the predicted characteristics of the travel market in 2020.

3.1 Lessons Learned from Similar Recreational Markets

Increasing visitor levels and associated traffic congestion are issues that have been experienced by national parks other than Acadia National Park. National parks such as Yosemite National Park, Grand Canyon National Park and Denali National Park have dealt with these problems and have taken steps to limit their visitors' dependence on automobiles by providing public transportation as well as other measures. Approaches implemented at these parks were reviewed and evaluated to see if those methods could be applicable to Acadia National Park. Also, seven recreational destinations served by rail were studied to identify factors that make transit service attractive or unattractive to visitors (see list on next page).

National Parks

The national parks that are most successful in attracting transit ridership have done so through a combination of promotion and policy. For example, the train services provided to and from the Grand Canyon and Denali National Parks are promoted as tourist attractions in themselves, because of the scenic beauty or historic significance of their routes. Further, at these parks there are strict policies in place that severely limit automobile access inside of the park. However, transportation services are in place that provide mobility and allow visitors access to nearly all of the destinations that they would have accessed by private automobile. Lastly, transportation services and tour operators coordinate their operations to complement each other for the visitor's convenience.

Mount Desert Island contains private homes and businesses in addition to Acadia National Park, and the National Parks Service does not have the ability to limit automobile usage through the island's single highway access point or island-wide. However, because Acadia National Park is a significant destination, restrictions on automobile access within the park have the potential to influence how people would get to the park and thus the overall demand for transit service.

Other Recreational Areas

The table on the next page lists the areas that were studied in order to gain an understanding of the factors that influence recreational transit ridership.

Table 3: Recreational Areas to Which Rail Service is Currently or was Recently Provided

Destination	Rail Service
The Hamptons, New York	Long Island Rail Road Montauk Line.
Mystic, Connecticut	Amtrak Northeast Corridor service.
Central Vermont/ Killington	Amtrak New York – Rutland service State of Vermont Burlington – Rutland service (discontinued).
Burlington, Vermont	Amtrak New York – Burlington service
New York State Parks and Appalachian Trail	Metro North Harlem and Hudson lines.
Boston's North Shore	MBTA Newburyport/Rockport Line.
Cape Cod	Commonwealth of Massachusetts Boston – Cape Cod service (discontinued) Amtrak New York – Cape Cod service (discontinued).

Tourist ridership on most of the services is, or was, very low. The existence of transit service to a tourist destination is not a compelling reason for tourists to use transit. There must be advantages to transit service such as travel time or cost savings. For example, the successful Hamptons service provides one-seat service from New York City, competing with heavily congested roads. Further, with respect to travel time, both the segment and "door-to-door" travel times need to be considered. The research implied that Bangor to Trenton services would need to minimize the rail or bus travel time while also minimizing connection times at both the Bangor and Trenton ends.

3.2 Existing Visitor Travel Market

Visitor travel characteristics were collected from the survey of Mount Desert Island visitors that was conducted specifically for this study (see Appendix 3), as well as other sources including studies conducted by the Maine Office of Tourism and the National Park Service. Four major visitor markets were analyzed:

- Overnight visitors traveling to and from Mount Desert Island at the beginning or end of their visit;
- Mount Desert Island visitors who stay in Ellsworth or Bangor;
- Mount Desert Island visitors who make side trips to Bangor or Ellsworth;
- Visitors who make day-trips to Mount Desert Island.

Research and analysis suggest the following conclusions about the existing visitors travel market:

- Downeast Acadia is the fourth most popular tourist destination in Maine (following the Southern Maine Coast, Portland/Casco Bay, and Maine Lakes and Mountains). The region's primary attractions are Acadia National Park and Mount Desert Island, which account for 81% of all visitor travel.
- Over one million visitors travel to Mount Desert Island annually.
- A majority (74%) of these trips are made during the late spring, summer, and early fall.
- According to surveys, 67% of all visitors arrive by private automobile and 11% arrive by recreational vehicle. The majority of visitors originate from the northeast and Mid-Atlantic States, often within a day's drive of Mount Desert Island.

- Ninety-one percent of all trips made to Mount Desert Island were for recreational purposes. The average length of stay is 3.4 days.
- Most visitors stay on Mount Desert Island, although 27% of visitors stay at off-island locations, such as Ellsworth and Bangor. These visitors would make daily trips to and from Mount Desert Island and a segment of these trips would be served by the proposed Bangor to Trenton public transportation services.

Of the 1.1 million individuals that travel to and from Mount Desert Island annually, the most likely candidates for public transportation would be those who fly to Bangor, take intercity buses, or drive a private vehicle without a trailer. (People who come to the area via recreational vehicles, including boats, are more likely to bring them directly to Mount Desert Island.) These characteristics apply to over 70% of the 1.1 annual million visitors (818,000). During the peak tourist season between June and September, volumes of visitors with these characteristics range from 9,300 to 13,000 one-way trips per day (see table below).

Table 4: **Summer 2000 Market for Bangor – Trenton Services (With Fly, Intercity Bus and Private Automobile Access Characteristics)**

	Potential Bangor – Trenton Public Transit Users				
	Overnight Visitors			Day Visitors	
	Arrivals & Departures via Corridor	Local Travel while in Area	Side Trips to Bangor	Arrivals & Departures via Corridor	Total One-Way Trips/Day
June	5,340	1,231	82	2,679	9,332
July	7,446	1,716	115	3,709	12,985
August	7,472	1,722	115	3,722	13,031
September	5,357	1,235	83	2,645	9,319
Season Total Trips					1,366,026

Source: KKO & Associates; estimates based on survey data.

The proportion of visitors that would use public transportation, if it were available, depends on a number of factors, including cost and travel time. The surveys and demand models developed for this study capture the relative importance of these factors in order to generate ridership estimates.

3.3 Existing Resident Travel Market

Data on resident travel characteristics were collected from available data sources including U.S. Census (2000 Population Estimates and 1990 Journey-to-Work data) and Maine Department of Labor. In certain cases where detailed data were not available—for example, for non-work trip travel—estimates were produced using procedures recommended by the National Cooperative Highway Research Program (NCHRP).

Between June and September, the total resident population in the corridor increases by 6% from approximately 64,000 year-round residents to 67,800. This increase in population is a result of the influx of seasonal employees and second homeowners. Most of the increase in population occurs in the coastal communities, Ellsworth, Trenton, Bar Harbor and other Mount Desert Island towns. For the summer of 2000, it is estimated that these full and part-time residents made over

265,000 trips in the corridor per weekday (see table below). Of these trips, 67,400 were work trips, 139,500 were home-based non-work trips, and 58,900 were non-home-based trips.

Only a fraction of the non-work trips would likely be attracted to Bangor to Trenton public transportation services. Non-work trips typically involve short distance trips and trip purposes such as grocery shopping or to pick up children, and long distance corridor services accommodate very few of these types of trips.

Table 5: Summer 2000 Average Daily Resident Travel

		Non-Work Trips		
	Work Trips	Home-Based	Non-Home Based	Total Trips
Bangor Area				
Bangor	29,147	64,474	27,334	120,954
Brewer	7,860	19,332	8,133	35,325
Holden	3,018	6,781	2,803	12,602
Dedham	1,115	4,183	1,733	7,030
Subtotal	41,140	94,770	40,002	175,911
Coastal Communities				
Ellsworth	8,391	14,050	5,911	28,353
Lamoine	1,484	3,525	1,478	6,487
Trenton	1,675	2,831	1,195	5,701
Bar Harbor	7,070	10,071	4,271	21,411
Mount Desert	2,911	5,606	2,389	10,906
Southwest Harbor	3,000	4,835	2,043	9,877
Tremont	1,704	3,853	1,633	7,190
Subtotal	26,235	44,771	18,921	89,927
Total	**67,375**	**139,541**	**58,923**	**265,838**

Source: KKO & Associates; estimates based on population and employment data.

The table on the next page provides origin and destination information for the work trips. For this type of trip, there are two sub-markets within the corridor: (1) a Bangor market (consisting of Bangor, Brewer, Holden and Dedham) and (2) a "coastal communities" market (consisting of Ellsworth, Trenton, Bar Harbor, Mount Desert, Southwest Harbor and Tremont). Work trips originating in these sub-markets tended to stay within them, and there are relatively few work trips made between them.

While the total number of resident trips within the corridor is high, most trips would not be served by Bangor to Trenton transit service; for example, intra-town trips (intra-sub-market trips) and trips between towns not served by the potential corridor transit services. After accounting for intra-town work trips and those to and from areas that would not be served, the potential work trip market for transit services would be approximately 12,800 trips of the total weekday work trips.

Table 6: Estimated 2000 Corridor Work Trips

	Work Town											
Home Town	Bangor	Brewer	Holden	Dedham	Ellsworth	Lamoine	Trenton	Bar Harbor	Mount Desert	Southwest Harbor	Tremont	Total
Bangor	25,891	2,578	205	13	261	0	54	97	13	31	0	29,144
Brewer	4,889	2,840	13	16	85	0	0	13	0	0	0	7,857
Holden	1,957	879	141	0	41	0	0	0	0	0	0	3,017
Dedham	621	179	82	136	82	0	5	9	0	0	0	1,114
Ellsworth	350	214	0	0	6,696	71	104	657	114	86	96	8,390
Lamoine	76	21	0	9	813	186	131	177	30	40	0	1,483
Trenton	50	12	0	0	665	12	259	441	77	97	62	1,674
Bar Harbor	56	0	0	0	506	0	70	5,874	342	213	7	7,068
Mount Desert	0	0	0	0	238	0	14	934	1,385	303	36	2,910
Southwest Harbor	41	7	0	0	134	0	33	539	167	1,802	275	2,999
Tremont	0	0	0	0	40	0	15	413	133	669	432	1,703
Total	33,931	6,731	441	175	9,561	269	685	9,154	2,262	3,241	908	67,359

Source: KKO & Associates; estimates based on population, employment, and forecasting techniques.

3.4 Year 2020 Travel Market

Once the characteristics of the current travel market were known, the next step was to forecast the number and characteristics of trips that could be expected in the future travel market. The year 2020 was chosen to represent a point in the future that would allow time for planning and implementation and "regular" operations, as opposed to start-up conditions. Separate, but similar, methodologies were used to forecast resident and visitor travel. These methodologies are described in detail in Appendix 3 and summarized below.

For resident travel, 2020 trips were typically estimated based on projected increases in population (starting with information from the Maine State Planning Office) and employment. Employment growth was projected by first developing factors to relate 2000 population and employment levels, and then applying these factors to the 2020 population projections to produce employment projections. The table on the next page shows predicted work trips by origin and destination. The future work trip market is large; however, as was the case with the existing work trips, many of these trip pairs (i.e. Lamoine to Lamoine) would not be served by the proposed transportation services and would not be expected to contribute to their ridership.

Table 7: Estimated 2020 Corridor Work Trips

	Work Town											
Home Town	Bangor	Brewer	Holden	Dedham	Ellsworth	Lamoine	Trenton	Bar Harbor	Mount Desert	Southwest Harbor	Tremont	Total
Bangor	26,310	2,620	208	14	265	0	55	98	14	32	0	29,615
Brewer	4,968	2,886	14	16	86	0	0	14	0	0	0	7,984
Holden	1,988	894	143	0	41	0	0	0	0	0	0	3,066
Dedham	680	196	90	149	90	0	5	10	0	0	0	1,220
Ellsworth	384	235	0	0	7,334	78	113	720	125	94	106	9,189
Lamoine	83	23	0	10	891	203	143	193	33	43	0	1,624
Trenton	55	13	0	0	728	13	284	483	85	106	68	1,834
Bar Harbor	61	0	0	0	555	0	76	6,433	375	233	8	7,741
Mount Desert	0	0	0	0	261	0	16	1,023	1,516	332	39	3,187
Southwest Harbor	45	8	0	0	147	0	37	590	183	1,974	301	3,284
Tremont	0	0	0	0	44	0	17	453	145	733	473	1,865
Total	34,574	6,874	454	189	10,441	294	746	10,017	2,477	3,547	995	70,608

Source: KKO & Associates; estimates based on population, employment, and forecasting techniques.

Visitor travel to Maine in the future was based on the following:

- U.S. population growth projections and projections for the Northeast region relative to projections for the nation as a whole;
- Growth in domestic travel in the U.S. over the past six years relative to population growth;
- Projections of future travel growth prepared by the Travel Industry Association of America;
- An assessment of a variety of trends likely to impact levels of travel activity and types of trips taken, and of relative positioning of the Maine and/or Northeast region relative to these national and international trends.

The following table summarizes the predicted visitors for 2020.

Table 8: Summer 2020 Market for Bangor – Trenton Services (With Fly, Intercity Bus and Private Automobile Access Characteristics)

	Potential Bangor – Trenton Public Transit Users				
	Overnight Visitors			Day Visitors	
	Arrivals & Departures via Corridor	Local Travel while in Area	Side Trips to Bangor	Arrivals & Departures via Corridor	Total One-Way Trips/Day
June	9,095	1,476	100	2,968	13,639
July	12,682	2,058	140	4,108	18,988
August	12,727	2,065	140	4,123	19,055
September	9,124	1,481	100	2,929	13,634
Season Total Trips					1,997,523

Source: KKO & Associates; estimates based on survey data.